|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Application No.                                                                 | Applicant(s)                                                                        |    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----|
| Notice of Allowability                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 10/630,068                                                                      | JANG ET AL.                                                                         |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Examiner                                                                        | Art Unit                                                                            |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Viet Q. Nguyen                                                                  | 2827                                                                                |    |
| The MAILING DATE of this communication appe<br>All claims being allowable, PROSECUTION ON THE MERITS IS<br>herewith (or previously mailed), a Notice of Allowance (PTOL-85)<br>NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RI<br>of the Office or upon petition by the applicant. See 37 CFR 1.313                                                                                                                                                                                               | (OR REMAINS) CLOSED i<br>or other appropriate comm<br>GHTS. This application is | n this application. If not included unication will be mailed in due course.         |    |
| 1. $\boxtimes$ This communication is responsive to <u>Amendment filed on 4</u>                                                                                                                                                                                                                                                                                                                                                                                                                       | <u>1/28/2005</u> .                                                              |                                                                                     |    |
| 2. X The allowed claim(s) is/are 1 and 3-10.                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                 |                                                                                     |    |
| 3.   The drawings filed on 30 July 2003 are accepted by the Ex                                                                                                                                                                                                                                                                                                                                                                                                                                       | aminer.                                                                         |                                                                                     |    |
| <ul> <li>4.  Acknowledgment is made of a claim for foreign priority un</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> <li>3.  Copies of the certified copies of the priority documents have</li> <li>International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul> Applicant has THREE MONTHS FROM THE "MAILING DATE" of the priority un | been received. been received in Application                                     | on No d in this national stage application fror                                     |    |
| noted below. Failure to timely comply will result in ABANDONM THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.                                                                                                                                                                                                                                                                                                                                                                                             | ENT of this application.                                                        |                                                                                     |    |
| 5. A SUBSTITUTE OATH OR DECLARATION must be submit INFORMAL PATENT APPLICATION (PTO-152) which give                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 |                                                                                     | OF |
| 6. CORRECTED DRAWINGS ( as "replacement sheets") mus                                                                                                                                                                                                                                                                                                                                                                                                                                                 | t be submitted.                                                                 |                                                                                     |    |
| (a) including changes required by the Notice of Draftspers                                                                                                                                                                                                                                                                                                                                                                                                                                           | -                                                                               | w ( PTO-948) attached                                                               |    |
| <ol> <li>1) ☐ hereto or 2) ☐ to Paper No./Mail Date</li> <li>(b) ☐ including changes required by the attached Examiner's</li> </ol>                                                                                                                                                                                                                                                                                                                                                                  |                                                                                 | r in the Office action of                                                           |    |
| Paper No./Mail Date                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | , randiament r comment o                                                        |                                                                                     |    |
| Identifying indicia such as the application number (see 37 CFR 1. each sheet. Replacement sheet(s) should be labeled as such in t                                                                                                                                                                                                                                                                                                                                                                    |                                                                                 |                                                                                     | of |
| 7. DEPOSIT OF and/or INFORMATION about the deposit attached Examiner's comment regarding REQUIREMENT I                                                                                                                                                                                                                                                                                                                                                                                               | SIT OF BIOLOGICAL MAT<br>FOR THE DEPOSIT OF BI                                  | ERIAL must be submitted. Note the OLOGICAL MATERIAL.                                | •  |
| Attachment(s)  1. ☐ Notice of References Cited (PTO-892)  2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/0                                                                                                                                                                                                                                                                                                                 | 6. ☐ Interview S<br>Paper No                                                    | nformal Patent Application (PTO-152) ummary (PTO-413), /Mail Date Amendment/Comment |    |
| Paper No./Mail Date <u>3/16/2005</u> 4. ☐ Examiner's Comment Regarding Requirement for Deposit                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                 | Statement of Reasons for Allowance                                                  |    |
| of Biological Material                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 9. ☐ Other                                                                      |                                                                                     |    |
| •                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                 | V. xtyregen                                                                         |    |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                                                                                 | VIET Q. <b>NGUYEN</b><br>PRIMARY EX <b>AMINE</b> R                                  |    |

## **REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance:

The prior arts fail to teach or fairly suggest a semiconductor memory device having a bitline coupling scheme capable of preventing sensing speed from lowering due to variations in an external power supply. The semiconductor memory device includes a memory cell array which includes a plurality of memory cells, each coupled to a bitline and a complementary bitline; a coupling capacitor with one end connected to either said bitline or the complementary bitline, and the other end of which a control signal is applied to; a bitline sensing amplifier; and a control circuit which generate the control signal. The improvement also consist of *having an internal power supply for such control circuit, and this internal power is generated by dropping an external power supply applied from the outside of said semiconductor memory device.* 

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Viet Q. Nguyen whose telephone number is (571) 272-1788. The examiner can normally be reached on 7am-6pm (EST).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

V. Nguyen 5/22/2005

Viet Q Nguyen **Primary Examiner** Art Unit 2827

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